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ABSTRACT

Research on attraction in an interpersonal context has strongly suggested that the more attracted two people are to one another, the more they tend to communicate. This study explored attraction and social interaction patterns at the perceptual level. Eighty male and female graduate students, 40 black and 40 white, completed a two part measure of attraction (physical and task) and a three part measure of dominance, argumentativeness, and dramatic components involved in communicative style. After completing the items dealing with self, each participant rated his or her best male friend, best female friend, worst female friend, worst male acquaintance, and worst female acquaintance. The data revealed no major sex related differences, except that males and females are more attracted to opposite sex friends than to same sex friends. Across both data sets a race effect was detected: for best friends, whites emphasize communicative dominance and task attraction, while blacks emphasize dramatic qualities, physical attraction, and argumentativeness. For worst acquaintances, blacks tend to stress dramatic qualities and physical attraction, while whites emphasize more task attractiveness, dominance, and argumentativeness. (HAI)

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Attraction and Communicator Style: Perceptual Differences Between Friends and Enemies as a Function of Sex and Race

by

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ABSTRACT

This study explores attraction and social interaction patterns at the perceptual level. Eighty male and female graduate students who are either black or white completed a two part-measure of attraction (physical and task) and a three-part measure of communicator style (dominance, argumentativeness, and dramatic components). After completing the items with regard to self, each participant rated his/her best male friend, best female friend, worst male acquaintance, and worst female acquaintance. Sex and/or race related differences between perceptions of best friends and worst acquaintances of both sexes are explored. Additionally, the structural interface between and among the variables is highlighted and compared for blacks and whites.

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April 25-29

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Attraction and Communicator Style: Perceptual Differences Between Friends and Enemies as a Function of Sex and Race

Research on attraction in the interpersonal context has strongly intimated that the more attracted two people are, the more they tend to communicate (Barocas & Karoly, 1972; Norton & Pettegrew, 1976). Correspondingly, communication per se may serve to enhance attractiveness in some respects (Rosenblatt, 1974). In short, social interaction leads to attraction and attraction leads to social interaction (Wilmot, 1975; Homans, 1961). Inasmuch as attraction is regarded as a highly salient facet of social relationships, it is somewhat surprising that both attraction and communication have not been incorporated into communication research more extensively. This study, which attempts to explore attraction and social interaction patterns at the perceptual level, was approached with a desire to shed some light on these variables within their cultural context. Rosenblatt (1974, p. 84) laments that interaction and attraction have "not adequately been dealt with" in the cross cultural literature. Further, research reporting interaction differences between males and females has been largely based on studies using undergraduate subjects (Bochner & Fitzpatrick, 1976). Consequently, this study employs a sample of 80 graduate students who are male or female and represent two different cultural groups, blacks or whites. While no formal hypotheses were posited, three research questions were salient: (1) Are there significant sex and/or race related differences between perceptions of attraction and communicator style for one's best male and best female friend? (2) Are there significant sex and/or race related differences between perceptions of attraction and communicator style for one's worst male and worst female acquaintance? (3) What is the psychological interface between attraction and communicator style variables for blacks' and whites' perceptions of self, best male friend, best female friend, worst male acquaintance and worst female acquaintance?

Rating Instruments

McCroskey and McCain (1974) report a factor analytic study which identifies thirteen Likert type items that purport to measure physical and task attraction.[1] These items in slightly revised form plus nine others generated by the researcher were administered to 155 undergraduates. The resulting measure contains variables that are overlapping and interdependent. Consequently, the infrastructure of the attractiveness measure was identified through McQuitty's Elementary Linkage Analysis (1957, 1968, 1971). The minimal correlation for inclusion was .50. Two clusters emerged which parallel McCroskey and McCain's factor structures. The first cluster consists of four items and taps sexual appeal/physical assets. The items are: (1) I am very sexy looking. (2) Members of the opposite sex find me sexually appealing. (3) Frequently members of the opposite sex look at me when I pass them on the street. (4) I am exceptionally well built. The second cluster consists of four items and constitutes a measure of task attraction. The items are: (1) When assigned a job I do it well. (2) I have confidence in my ability to get a job done. (3) I am dependable. (4) I am a good problem solver.

Social interaction tendencies or patterns were assessed by a shortened version of the Communicator Style Measure. The measure has been previously established as a multidimensional 51 item instrument consisting of five factor analytic identified communication elements: dominance, dramatic, relaxed, attentative, and open (Norton, 1974a, 1974b; Miller, 1975). The measure was administered to 600 undergraduates and factor analyzed prior to this study.[2] Dimensionality under orthogonal rotation was essentially consistent with that revealed by previous

analyses; oblique rotation, however, split the dominance dimension, the primary orthogonally identified factor, into two components: dominance and argumentativeness. The other factors maneuvered for priority due to the change in axis placement, but one dimension did retain appreciable structural integrity. Thus in the interest of exploring the finer discriminations suggested by the oblique analysis, a decision was made to use the correlated dominance and argumentativeness factors and the single other factor retaining the greatest item allegiance across both oblique and orthogonal rotations. That dimension was dramatic. The communicator style items selected for use in this study tap dominance, argumentativeness, and dramatic tendencies. The items are:

Dominance

In most social situations I generally speak very frequently.

I am easily able to break into a conversation.

I am dominant in social situations.

I try to take charge of things when I am with people.

In most social situations I tend to come on strong.

Argumentativeness

When I disagree with somebody I'm very quick to challenge them.

In arguments I insist upon very precise definitions.

I am very argumentative.

It bothers me to drop an argument.

Dramatic

I dramatize alot.

I tend to constantly gesture when I communicate.

I often physically and vocally act out what I want to communicate.

I use alot of facial expressions when I communicate.

Procedures

Participants in this study consisted of 80 graduate students from a variety of academic departments and living quarters. Twenty black males, twenty black females, twenty white males, and twenty white females were individually asked to rate themselves on each attraction and communicator style item. A four point response scale was employed. Additionally, each participant rated his or her best male friend, best female friend, worst male acquaintance, and worst female acquaintance on the same items in slightly revised form. The scores for each attraction cluster and each communicator style factor were collapsed; resulting in five separate scores for each target: self, best male friend, best female friend, worst male acquaintance, and worst female acquaintance. These data were subjected to a variety of comparisons and statistical analyses.

Statistical Analysis and Discussion

The instruments and procedures outlined above generated a reasonably complex data set. In order to gain a "feel for the data" and work into the appropriate statistical analysis procedures (MANOVA followed by univariate F's and discriminant function analysis) two preliminary analyses were conducted. The original intention was to execute a comprehensive MANOVA, i.e., all five variables (DO/dominance, AR/argumentativeness, PA/physical attraction, TA/task attraction, and DR/dramatic) on all five targets (referred to respectively as WHO_1 to WHO_5 for self through worst female acquaintance) would be simultaneously analyzed. The rationale was that such an analysis would indicate the presence of anything interesting, i.e., significant. Unfortunately, the available computer facility could not handle a 400 x 400 matrix. Consequently, alternative preliminary analyses were executed.

Huberty (1975) and Grizzle (1970) argue that univariate ANOVA's can be helpful in locating within a multivariate data set, variables that may be worthy of attention. The SPSS program "Breakdown" (Nie, et al., 1975) was executed. Breakdown provides a description of subgroups within a sample and computes one-way ANOVA's across the composite group scores. While this analysis is technically inappropriate, it was executed to help generate some feel for the data. Analysis of Sex by Race by Who revealed no significant differences on any of the five dependent variables. Analysis of Race by Who by Sex revealed that, in the sense afforded by univariate F's, blacks scored higher on physical attraction and dramatic than whites. Analysis of Who by Sex by Race indicated significant differences between the five targets. This finding is not at all surprising since it is to be expected that people will perceive attraction and communicator style differences between their best friends and their worst acquaintances.

A second procedure called for simply plotting the mean values by sex and race on the five variables for each of the five targets. Graphs 1 to 5 respectively display subject response patterns for WHO_1 to WHO_5.

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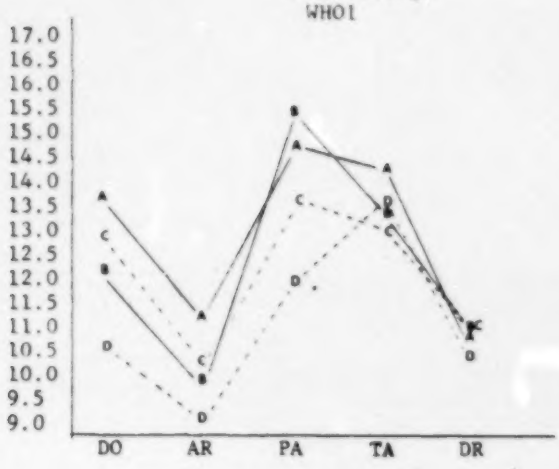
Graphs 1 to 5 about here
- - - - - - - - - - - - - - - - -

Several insights can be drawn from the respective graphs. First, the displays help one understand the univariate F's. The Breakdown procedure, for example, indicated that blacks scored significantly higher than whites on physical attractiveness. By examining the comparative placement of data points across the graphs one can see that blacks do tend to generally rate physical attraction higher than do whites. The pattern is particularly striking WHO_1, WHO_4, and WHO_5. While the univariate F on dramatic was not as large as that for physical attraction ($F = 4.66$ vs 9.83), the graphs for WHO_3, WHO_4, and WHO_5 show the blacks' ratings to be higher than the comparable ratings from the whites. Second, the graphs provide a visual display of what subsequent MANOVA's will analyze. By comparing graph 2 and 3 (best male versus best female friend) several data features become striking. Males and females, regardless of race, tend to reverse the importance of physical attractiveness as a function of the sex of their best friend. Additionally, females of both races are more interested in task attraction with a best friend male than are males; but whites of both sexes are more interested in task attraction with a best friend female than blacks. With respect to the communicator style variables, the patterns are not strikingly different between the two targets.

GRAPH 1

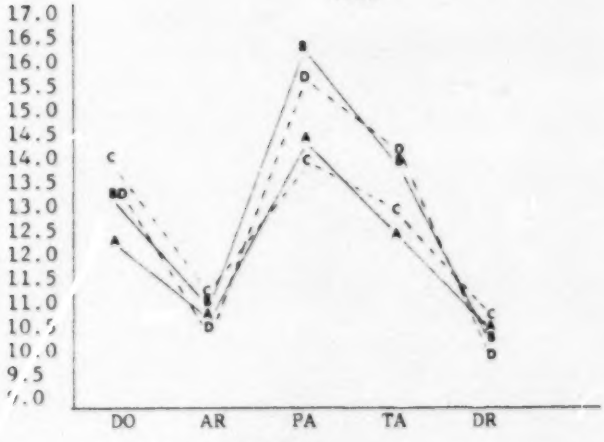
Self Ratings
WHO1



A = black males
B = black females
C = white males
D = white females

GRAPH 2

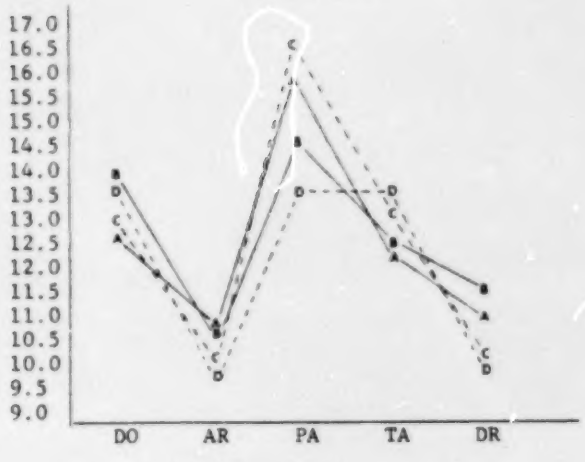
Best Male Friend Ratings
WHO2



A = black males
B = black females
C = white males
D = white females

GRAPH 3

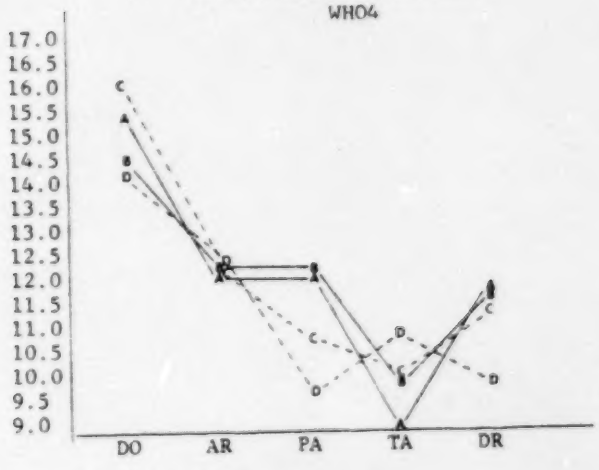
Best Female Friend Ratings
WHO3



A = black males
B = black females
C = white males
D = white females

GRAPH 4

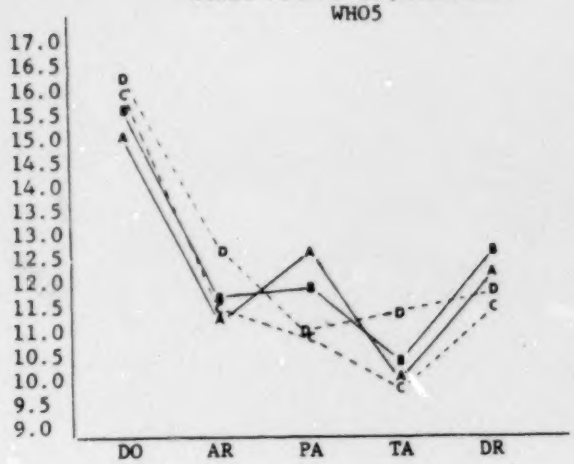
Worst Male Acquaintance
WHO4



A = black males
B = black females
C = white males
D = white females

GRAPH 5

Worst Female Acquaintance
WHO5



A = black males
B = black females
C = white males
D = white females

Comparison of the graphs for worst male and female acquaintance suggest that, aside from greater attention to physical attractiveness by blacks, the patterns are not higly dissimilar. Comparison of the graphs for best friends versus worst acquaintances is also suggestive. While the respective patterns among the communication variables are not highly dissimilar, worst acquaintances are scored as more dominant, argumentative, and dramatic than best friends. Obversely, best friends are scored higher on attraction, both physical and task, than worst acquaintances. Here too, however, the pattern between the attraction variables is similar across best friends and worst acquaintances, i.e., best and worst are both more physically attractive than task attractive.

Two of the questions of interest in this study center around differences in perceptions of the five variables for (1) best male and female friend and (2) worst male and female acquaintance. These data were partitioned and subjected to a three way multivariate analysis of variance.

The MANOVA on the data for best male and best female friends revealed two significant F's. The data contain a race related effect and a two-way interaction between sex and who (2,3). The main effects for sex and who were not significant; nor were any of the other interactions. Table I displays a summary of the statistical results.

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Table I about here
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One striking feature of Table I is that none of the univariate F's attained statistical significance. The finding that the overall MANOVA F is significant, but none of the univariate F's contribute at the conventional .05 level may appear contradictory. This, however, is not actually the case. Cramer and Bock (1966) and Yerby (1975) argue that once a significant MANOVA F is uncovered, it is appropriate to examine univariate F's on the several variables "to determine which of the variables were most sensitive" within the larger variable system. Yerby (1975) seems to equate "most sensitive" with statistical significance. Since the present set of ANOVA F's contains no statistically significant F ratios, her line of reasoning suggests that task attraction ($p < .09$) comes closest to being the "most sensitive" of the dependent variables. There is a problem in this interpretation, however, and it lies in expecting univariate tests to shed light on phenomenon that are inherently multivariate.

In communication research, where analytic variables are very often interdependent, univariate analysis of individual variables within a larger variable system is, by itself, inappropriate and often misleading. The expectation that a univariate analysis will isolate specific variables that account for or explain the presence of a significant MANOVA F is unwarranted. Essentially the problem is that univariate analyses treat a single variable as if it were independent of the other variables when it is not. Consequently, conclusions based on such analyses, if they are the sole adjuncts to MANOVA, are frequently in error. Only discriminant function analysis is capable of identifying which variable or variables within the system is/are most sensitive. Discriminant function, unlike univariate analysis, considers the entire system of variables simultaneously and provides, through standardized discriminant function coefficients, an accurate indication of the most sensitive variables (Tatsuoka, 1970; Huberty, 1975).

TABLE I

Multivariate and Univariate Analysis of Variance on Race: Best Male Friend vs Best Female Friend

multivariate analysis of variance

df	F-Ratio	p less than
5,72	2.63	.0307

univariate analysis of variance*

source	F-Ratio	p less than
DO	.957	.331
AR	.935	.336
PA	.438	.509
TA	2.861	.095
DR	1.383	.243

*df = 1,76

TABLE II

Multivariate and Univariate Analysis of Variance on Interaction for Sex x Who(2,3)

multivariate analysis of variance

df	F-Ratio	p less than
5,72	3.76	.004

univariate analysis of variance*

source	F-Ratio	p less than
DO	.682	.411
AR	.004	.948
PA	14.756	.000
TA	2.759	.100
DR	.385	.536

*df = 1,76

Examination of the standardized discriminant function coefficients for the present data set indicates that the most highly distinguishing attributes of the whites' best friends when compared with the blacks' best friends is that the former tend to be seen as more dominant (.94) and task attractive (.72). Contrastingly, the blacks' best friends tend to be more argumentative (-.79), more dramatic (-.46), and more physically attractive (-.42).

Table II displays a summary of the statistical results for the interaction between sex and who (2,3). This MANOVA reports the presence of significant

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Table II about here
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differences in the dependent variable system when best friend same sex is considered against best friend opposite sex. The univariate analyses suggest that physical attractiveness is a major element in the variable system and indeed this is confirmed by the comparative magnitude of the discriminant function coefficient for physical attractiveness (-.89). In short, analysis suggests that best friends opposite sex are seen as more physically attractive, task attractive (-.37), argumentative (-.22), and slightly more dramatic (-.01) than best friend same sex. The latter is recognized by his/her communicative dominance (.48).

A three-way MANOVA for the data on worst male and female acquaintance revealed two main effects and no interactions. As was the case for best friends, the data for worst acquaintances involved a race effect. Table III presents a summary of the statistical findings.

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Table III about here
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The univariate F's indicate that physical attraction, when considered apart from other variables, is the most sensitive variable. Examination of the mean scores and the appropriate graphs (4 and 5) indicates that blacks report seeing their worst male and female acquaintances as more physically attractive than whites see their worst male and female acquaintances. This finding, however, is not fully supported by the discriminant function. The standardized discriminant coefficients indicate that blacks see their worst acquaintances as being more dramatic (-.81) and physically attractive (-.59) than whites see their worst acquaintances. Whites, on the other hand, see their worst acquaintance as being more task attractive (.45), dominant (.18), and argumentative (.16).

The second main effect in this data involves differences between worst male and worst female acquaintances. Table IV presents a summary of the multivariate and univariate tests. The univariate F's suggest that task attraction is the most

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Table IV about here
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TABLE III

Multivariate and Univariate Analysis of Variance on Race: Worst Male Acq. vs Worst Female Acq.

multivariate analysis of variance

df	F-Ratio	p less than
5,72	2.37	.047

univariate analysis of variance*

source	F-Ratio	p less than
DO	.423	.517
AR	.311	.578
PA	4.35	.040
TA	2.56	.113
DR	2.42	.123

*df = 1,76

TABLE IV

Multivariate and Univariate Analysis of Variance on Who(4,5): Worst Male Acq. vs Worst Female Acq.

multivariate analysis of variance

df	F-Ratio	p less than
5,72	3.87	.003

univariate analysis of variance*

source	F-Ratio	p less than
DO	.984	.324
AR	.346	.558
PA	.692	.407
TA	4.416	.038
DR	2.786	.099

*df = 1,76

sensitive variable in the data set, but the discriminant analysis rates task attraction as the third most discerning variable within the system. Male worst acquaintances tend to be very argumentative (-1.23). Female worst acquaintances tend to be more dramatic (.86), more task attractive (.80), somewhat more physically attractive (.42), and slightly more dominant (.32) than worst male acquaintances.

While the MANOVA and adjunct analyses are helpful in exploring how the particular attraction and communicator style variables shift (or fail to shift) as a function of sex, race, and target, we still are not afforded a clear appreciation of the psychological interface among the variables. The statistical analyses suggest that the greatest differences are primarily a function of race and secondarily a function of the target, i.e., the relationship to and sex of the person rated. No surprising differences were found deriving from the sex of the persons making the ratings, i.e., male and female participants responded in about the same pattern for the various targets. In order to gain an appreciation of the psychological interface between attraction and communicator style for blacks' and whites' perceptions of the several targets, McQuitty's Elementary Linkage Analysis was employed. The composite variable scores were intercorrelated for each racial group on each of the five targets. Using a minimal correlation of .3, the linkages depicted in Figure 1 were constructed. Essentially, the figure "maps out" the

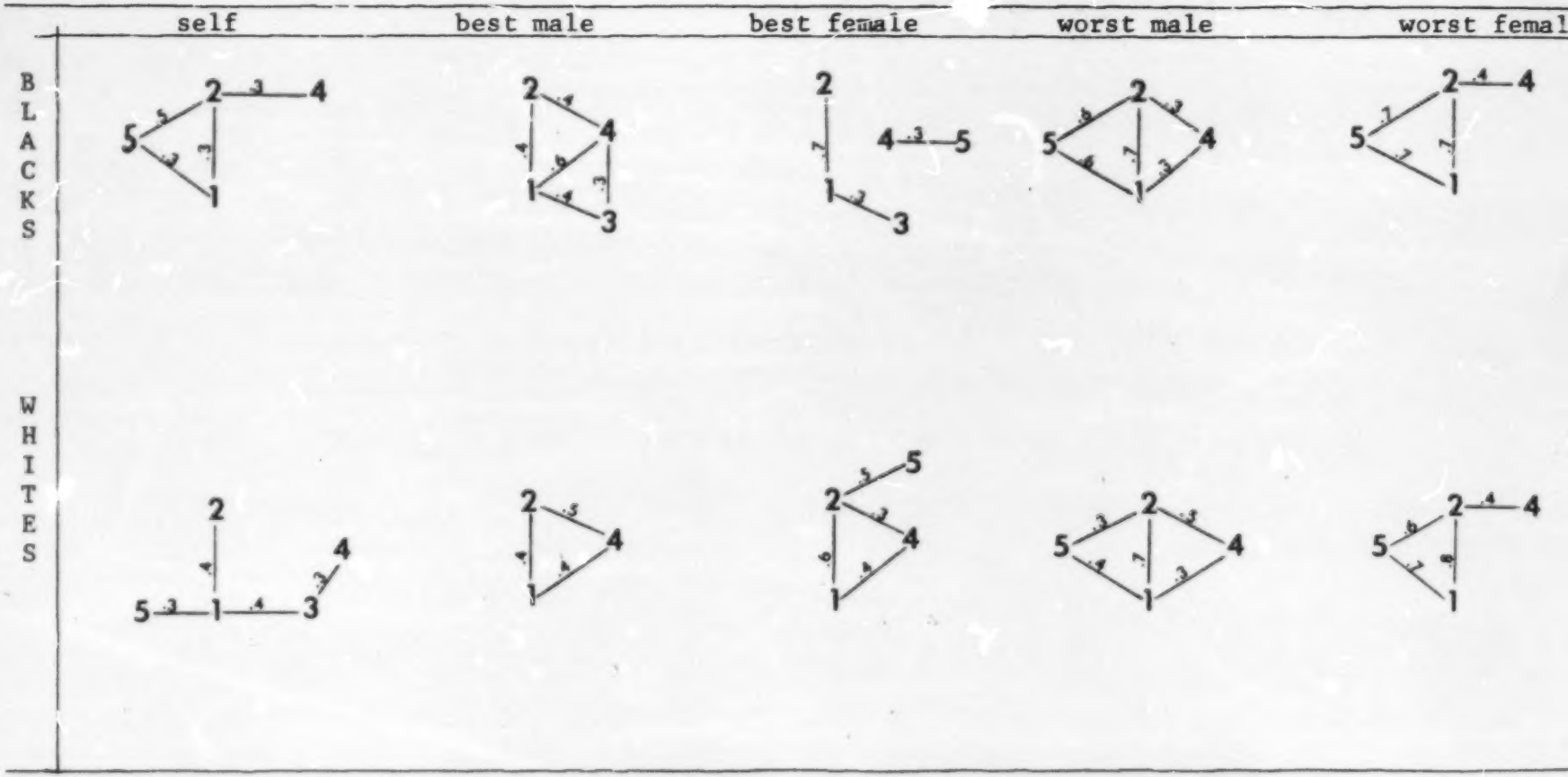
- - - - - - - -
Figure 1
about here
- - - - - - - -

psychological interface between the variables for each race across all five targets.

In every case dominance (1) and argumentativeness (2) were related at or above the minimal level. This is not surprising since they were constructed from an obliquely rotated factor analytic solution. Several additional features of the are striking. First, both blacks and whites possess the same basic psychological inter-variable structure patterns for their worst male and female acquaintances. Not only the basic structure pattern, but, for the most part, the strength of the relationships between variables is remarkably similar. Second, with regard to best female friend, blacks and whites are rather dissimilar. Blacks see two unrelated components, each containing both attraction and communication variables. Whites have a more integrated assessment, but do not attend to physical attraction in their perceptual set. With regard to perceptions of attraction and communicator style for best male friend, blacks and whites have very tightly knit structures, but blacks have a more comprehensive view. Aside from the blacks' attention to their best male friends' physical attractiveness, the major difference between best and worst males is that the dramatic component enters the structure and is well attached to the other communicator style variables. The dramatic component is also strongly attached in the structure for worst female acquaintances for both races. Interestingly, the best and worst males are alike in the perceptions of both races in that task attraction ties to dominance and argumentativeness. Note, however, that the tie is slightly stronger for best male friends, particularly in the minds of blacks. Blacks see physical attractiveness as a part of the attraction/communicator style structures for best friends, both male and female; but they do not report physical attractiveness as being important in their perceptions of themselves. Whites, contrastingly, see physical attraction as linked in their own attraction/communicator style structure, but do not regard it as focal for their best friends or worst acquaintances.

FIGURE 1

Psychological Interface of Attraction and Communicator Style Variables*



*Dominance = 1; Argumentativeness = 2; Physical Attraction = 3; Task Attraction = 4
Dramatic = 5 Intercorrelations below .3 are not reported.

Conclusions

This study generated from an interest in exploring perceptions of attraction and social interaction within two different cultural groups. Primary attention was focused on uncovering sex and/or race related differences between perceptions for best friends and worst acquaintances of both sexes. The data revealed no major sex related differences, except that males and females are more attracted to opposite sex friends than to same sex friends. In other words, males and females assess their friends and enemies in about the same way with respect to attraction and communicator style.

Across both data sets (best friends and worst acquaintances of both sexes), a race effect was detected. For best friends, whites' perceptions tend to emphasize communicative dominance and task attraction while blacks emphasize argumentativeness, dramatic qualities, and physical attraction. For worst acquaintances, blacks' tend to emphasize dramatic qualities and physical attraction, i.e., they see more of these qualities in their worst acquaintances than whites do in their worst acquaintances. Whites perceive more task attractiveness, dominance, and argumentativeness in their worst acquaintances than blacks do in theirs. Undesirable (worst) male acquaintances tend to be more argumentative than undesirable (worst) female acquaintances, while females are more dramatic, task attractive, physically attractive, and dominant than the males. McQuitty's clustering technique provides some insight into how the attraction and communicator style variables interrelate for the perceptual sets blacks and whites have of themselves, their best friends, and their worst acquaintances.

This research helps to identify the perceptual underpinnings and interrelationships between attraction and communicator style. Additionally, some of the cultural/racial differences in how people perceive their friends and their more undesirable acquaintances are made explicit. While this study provides some validity for the belief that attractiveness and the way one communicates are functionally related, subsequent investigations are needed if a complete and wholistic set of relationships is to be established.

NOTES

[1]McCroskey and McCain actually report three factors: social attraction, physical attraction, and task attraction. Social attraction was excluded because this study is operating within the social arena, i.e., the participants were reporting upon their social relationships.

[2]The rationale for defining instrumentation intended for use with graduate students on undergraduate responses is twofold. First, the large N needed for reduction analyses precluded graduate students because there were not adequate numbers available. Second, and more importantly, a comparative study is to be executed on undergraduates. Consequently, one set of instruments was desired for comparative purposes across samples.

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